Curriculum Vitae of Prof. Nikhil K. Singha (M.Tech., Ph.D.)

Professor Nikhil K. Singha, FRSC
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Rubber Technology Centre
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Research Interest:

- Tailor-made functional polymers and elastomers via controlled polymerization process technology.
- Smart self-healing, self-cleaning, super-hydrophobic polymer materials.
- Block, graft, brush-like, multi-armed star copolymers, bio-active functional polymers and their applications.
- Green & sustainable materials and process

Education:

B.Sc.: Chemistry (Main) University of Calcutta, India
M.Sc.: Chemistry (Organic), Indian Institute of Technology (IIT), Kharagpur, India, 1988
M.Tech.: Rubber Technology Centre, IIT, Kharagpur, India, 1990
Ph.D.: IIT Bombay, India**, 1996**

Awards / fellowships & members of scientific organization:

Institute Faculty Excellence Award 2022 by IIT Kharagpur, Fellow of West Bengal Academy of Science and Technology (**FWAST**)(2021), **Fellow of Royal Society Chemistry** (FRSC), Awarded **Prof. M. Santappa Award** (2014) by Society of Polymer Science India (SPSI), **MRSI Medal** by Material Research Society of India (MRSI) (2013), **Fulbright** Senior Fellowship (2013), **Fifth Polymer Foundation Award** by Prof. SukumarMaiti Polymer Award Foundation (2012), Visiting Scientist in University of Sheffield, UK with fellowship **from Royal Society**, London, UK (2006), in Institute for Polymer Research, Germany with **INSA-DFG & DAAD** fellowship (2008 & 2011) and in EPFL, Switzerland, Fellowship from **Swiss Federal Institute** (2009).

Fellow of Royal Society Chemistry (**FRSC**), Life member of Materials Research Society of India (**MRSI)**, Society of Polymer science of India (**SPSI**) & Chemical Research Society of India (**CRSI**), Affiliated member of ACS (1997-2009), Member of ACS, Rubber Division (since 2009). Member of ACS Polymer Chemistry (2012),

Professional Experience:

October, 2016 to September, 2019, Chair, Rubber Technology Centre, IIT Kharagpur
Feb, 2015- till date: **Professor** in Indian Institute of Technology, Kharagpur, India
May, 2010- Jan. 2015: **Associate Professor** in Indian Institute of Technology, Kharagpur, India
August, 2013 to April, 2014; Fulbright Senior Fellow, University of Tennessee, Knoxville, USA
2003- May, 2010: Assistant Professor Indian Institute of Technology, Kharagpur, India

2001-2002: Research Scientist in Netherlands Organization Applied & Scientific Research, Eindhoven, NL

1999-2000: Post Doc.Fellow; Dutch Polymer Institute, Eindhoven University of Technology, NL

1996-1998: Post Doctoral fellow in DSM Research, Geleen, The Netherlands

Supervisor: Ph.D. students; 20 (Completed), (10 under progress) & M. Tech students (> 50)

Member of the Editorial Board:

European Polymer Journal (IF: 4.60), Elsevier Publications; **SPE Polymers**, Wiley Online Publications; **Associate Editor** in Frontiers in Chemistry (Polymer Section) Published from EPFL, Switzerland.

International Conferences & Workshop organized as Convener:

- International Workshop under the SPARC project (**with University of Melbourne**) on **"Sustainable Functional Materials & Processes" (SFMP 2023)** held in 20th February, 2023 in IIT Kharagpur**.**
- International Webinar entitled "**Emerging Materials in Cancer Therapy (EMCT – II)**" held on 14th March, 2023 via online under SPARC collaborative program with University of Manchester, UK.
- International Webinar entitled "**Functional Polymer Gels; Design and its Applications" (FPGDA 2021)**" held on 17 th June, 2021 via online under DST-DFG collaborative program with University of Aachen, Germany.
- International Workshop under the SPARC project (**with University of Melbourne**) on **"Green and Sustainability in Polymers and Functional Materials" (GSPFM-2020)** held in February 7-8, 2020 in IIT Kharagpur**,**
- Convenor of International Conference **"Advances in Polymer Science and Rubber Technology (APSRT-2019); Vision 2030"** held in IIT Kharagpur during September 24-27, 2019 **(attended by > 250 delegates from 10 different countries),**
- **International Year of Chemistry (IYC)** & National Symposium on **Frontiers in Polymer Chemistry**, November 29-30, 2011 in IIT Kharagpur,
- Convener of International Conference on "**Advances in Polymer Science and Rubber Technology; Challenges towards 2020 and beyond"** held in IIT, Kharagpur, India in March 3-5, 2011,
- **As Co-Convenor, International Workshop on "Materials for Regeneration & Therapy of the Eye"** held in July 25-29, 2011 in Sheffield, UK under Indo-UK Science Network Program
- International Workshop on **"Recent Advances in Polymeric and Rubbery Materials"** in January 15-19, 2007, in IIT Kharagpur.

Reviewer of PhD thesis; Technology University of Dresden, Germany, IISC Bangalore, IIT Bombay, IIT Madras, IIT Guwahati, IIT Patna, NCL Pune, IISER Mohali, Jadavpur University, University of Calcutta, Central University of Hyderabad, University of Trivandrum, University of Guwahati, Tezpur University, Cochin University,

Referee of the International Peer-Reviewed Major Journals: Journal of American Chemical Society, Macromolecules, Biomacromolecules, Langmuir, ACS Applied Materials & Interfaces, ACS Applied Bio Materials, ACS Applied Polymer Materials, Chemistry of Materials, ACS Sustainable Chemistry and Engineering,
Journal of Material Chemistry (A & B), Chemical Communications, Polymer Chemistry, Chemical Soc. Rev., Biomaterials Science
European Polymer Journal, Chemical Engineering Journal, Progress in Organic Coatings, Acta Biomaterialia, Polymer, Journal of Colloid and Interface Sciences,
Macromolecular Materials Engineering, Macromolecular Chemistry Physics, Macromolecular Rapid Communication, Journal of Material Science,

Invited Seminars/Lectures: Delivered several invited talks in different Institutes as follow;
Kyoto University, Kyoto, **Toyota Institute of Technology**, Nagoya, **Gifu University**, Shizuoka University**, Japan (December 2018**), **University of Melbourne**, Royal Melbourne Institute of Technology (**RMIT**), **Australia (July 2018)**, Leibniz Institute for Materials Interfaces (**DWI**), Aachen, **Germany (June 2018),** Leibniz Institute for Polymer Research, Dresden, Germany (June, 2018 & July, 2008), **University of Malay, Malaysian Rubber Board**, Malaysia (October, 2017), **University of Manchester**, UK (July, 2017), **IICT, Hyderabad, University of Hyderabad**, India (January, 2017), **Gent University**, Belgium (June, 2015), **Oak Ridge National Laboratory** (ORNL), TN, USA, (September, 2013), **University of Akron**, USA (October, 2013). **EPFL, ETH Zurich** Switzerland (June, 2009), **IUPAC Polymer Congress** held in Virginia Institute of Technology, **Virginia, USA (June, 2012)**, **Clarke-Atlanta University**, Atlanta (June, 2012), **Indian Institute of Space Technology (IIST)**, Trivandrum (December, 2012**),**

Invited talks in few selected International Conferences:

- March, 2023, Invited talk on **"Functional Polymers using Dynamic Chemistry: Design and Applications"** in the International Conference on "New Developments in Polymeric Materials, **DPM-2023**" held in Kovalam, Thiruvananthapuram.
- March, 2023, Invited talk on **"Dynamic Reversible Crosslinking in Elastomers: A New Approach Towards Sustainability."** in the International Conference on "Advancement in polymeric Materials (**APM 2023**)" held in CIPET, Bengaluru.
- December, 2022, Presentation of Paper on "**Self-healable Anti-counterfeiting Coating via RAFT Mediated PISA Polymerization**" in the International Conference on **PPC 17 The 17th Pacific Polymer Conference**, held in Brisbane Convention Centre, Australia.
- November 2022, Invited talk on **"Click" Chemistry; Multi-talented Toolbox in Polymer Science"** in the International Conference on "**SPSI MACRO 2022**" held in National Chemical Laboratory (CSIR-NCL), Pune, India
- November 2022, Invited talk on **"Self-healable and Recyclable Elastomers based on Covalent Adaptive Networks (CAN)"** in the International Conference on "**International Rubber Conference – IRC 2022**" held in Bengaluru.
- September 2022, Invited talk on **"Click" Reaction in Polymer Chemistry"**in the International Symposium "Exploring Molecules, Materials and Biomaterials For Sustainable Society **(EMMBSS-2022)**" held in Midnapore College, West Bengal.
- September 2022, Invited talk on **"Designing Multifunctional Fluoropolymers for Specialty Coating Applications**" in the International Symposium "**Symposium on**

Polymers & Advanced Materials for Coatings and Energy (SPACE-22)" held in IICT, Hyderabad.

- August 2019, Invited talk on **"A New Class of Elastomers from Renewable Bioresources"** in the International Conference on "Sustainable Polymers" held in IIT-Guwahati.
- July 2019, Invited talk on **"Click" Chemistry in Polymer Science; Opportunities & Challenges"** in the International Symposium held in IISER Kolkata.
- June 2019, Invited talk on **"Functional Polymers via Controlled Radical Polymerization and "Click" Chemistry"**in the Symposium "Advances in Polymer Science" NCL, Pune
- November, 2018 Keynote lecture on **"Self-healing Polymers; An emerging Technology in Materials Science" in** the 56th National Metallurgists' Day (NMD) and 72nd Annual Technical Meeting (ATM) organized by the Indian Institute of Metals in association with Tata Steel.
- Delivered invited talk in **MACRO-2018**, the International Conference organized by Society of Polymer Science India (SPSI) in December, 2018 organized by IISER, Pune and NCL, Pune.
- July 5, 2017 delivered Invited talk on **"Functional polymers, synthesis and applications"** in University of Manchester, UK.
- **May, 2013**; Invited talk in the International Conference, 3rd Polymer Congress of the Federation of Asian Polymer Societies (FAPS) FAPS-MACRO-2013] held in IISC Bangalore**.**
- **June, 2012;**Invited talk in **IUPAC Polymer Congress** held in Virginia Institute of Technology, Virginia, USA,

Publications/Patents

Peer-reviewed journals 195, (* indicates corresponding author), Patent 17 (one US, one European and fifteen Indian patents), Book 2 (Smithers Rapra), Book Chapter 11 and Conference Proceedings 88, H-index is 44, i-10 index 139 and citations index is 8714 (by Google Scholar).

Publications in major journals (with Impact Factor, IF); Progress in polymer Science (IF 29.19), Chemical Eng. Journal (IF 13.27), Green Chemistry (IF 10.18), ACS Applied Materials & Interfaces (9.23), Journal of Colloid Interface Science (IF 8.13), Macromolecules (IF 5.99), Chemical Communications (IF 6.22), Materials Science Eng. C (IF 7.33), Journal of Materials Chemistry B (IF 6.33), Polymer Chemistry (IF 5.58), Polymer (IF 4.43), European Polymer Journal (IF 4.60), Macromolecular Materials Engineering (IF 4.37)

Peer-reviewed journals 195, (* indicates corresponding author), Patent 17 (one US, one European and fifteen Indian patents), Book 2 (Smithers Rapra), Book Chapter 12 and Conference Proceedings 88, H-index is 44, i-10 index 139 and citations index is 8714 (by Google Scholar).

1	Raut Sagar Kumar, Mondal Prantik, Sarkar Shrabana, Parameswaran Bhavya, Bhadra Sambhu, Nair Sujith, Narain Ravin and **Singha, Nikhil K**.* (2023): Functional self-healable EVA elastomers based onreversible covalent networks: A potential new class ofepoxy-based specialty adhesives, ***Journal of Polymer Science, 1–12, DOI: 10.1002/pol.20230118.***

2	Samanta Sarthik, Sarkar Shrabana, and **Singha, Nikhil K.*** (2023): Multifunctional Layer-by-Layer Coating Based on a New Amphiphilic Block Copolymer via RAFT-Mediated Polymerization-Induced Self-Assembly Process, ***ACS Applied Materials & Interfaces, DOI: 10.1021/acsami.3c00527.***
3	Arunjunai R.S. Santha Kumar, Amrishkumar Padmakumar, Uddhab Kalita, Sarthik Samanta , Anshul Baral , Nikhil K. Singha, Muthupandian Ashokkumar, Greg G. Qiao, (2023): Ultrasonics in polymer science: applications and challenges, ***Progress in Materials Science,* 136, 101113.**
4	Amrish Kumar Padmakumar, Vianna F. Jafari1, Nikhil K. Singha, Muthupandian Ashokkumar, Greg G. Qiao **Singha, Nikhil K.*** (2023): Synthesis of Star Polymers Using Ultrasound-Induced RAFT Polymerization: ***Journal of Polymer Science,* 1-10.**
5	Bhattacharya Koushik: Kundu Moumita; Das Subhayan; Samanta Sarthik; Roy Sib Sankar; Mandal Mahitosh; and **Singha, Nikhil K.*** (2023):Glycopolymer Decorated pH-Dependent Ratiometric Fluorescent Probe Based on Förster Resonance Energy Transfer for the Detection of Cancer Cells: ***Macromol. Rapid Communication, 44, 2200594.***
6	Ganguly Ritabrata; Saha Pabitra; Kringe Antonia Lea; Pich Andrij; and **Singha, Nikhil K.*** (2023): Thermoresponsive Microgels with High Loading of Zwitterions Exhibiting Superior Performance: A Macromonomer Approach, ***Macromol. Chem. Phys*., *224 (1) 2200349.***
7	Raut Sagar K; Sarkar Shrabana; Mondal Prantik; Meldrum Alkiviathes; **Singha, Nikhil K.*** (2023): Covalent Adaptable Network in an Anthracenyl Functionalised Non-olefinic Elastomer; A New Class of Self-Healing Elastomer Coupled with Fluorescence Switching, ***Chemical Engineering Journal*, *453*, *139641*.**
8	Bhattacharya, Koushik; Das, Subhayan; Kundu, Moumita; Singh, Sudarshan; Kalita, Uddhab; Mandal, Mahitosh; **Singha, Nikhil K.*** (2022): Gold Nanoparticle Embedded Stimuli-Responsive Functional Glycopolymer: A Potential Material for Synergistic Chemo-Photodynamic Therapy of Cancer Cells, ***Macromolecular Bioscience,* 22(9), 202200069.**
9	Raut Sagar K; Asha Anika B; Narain Ravin * **Singha, Nikhil K.*** (2022): Ultrafast Derived Self-Healable, Reprocessable Polyurethane Elastomer Based on Dynamic "Electrophilic Substitution (ES)-Click" Chemistry, ***Macromolecules, 55, 10264−10275.***
10	Padmakumar Amrish Kumar; ARSS; Logan Stephanie Allison; Ashokkumar Muthupandian, **Singha, Nikhil K.***and Qiao Greg G. *(2022): High chain-end fidelity in sono-RAFT polymerization, ***Polymer Chemistry,* 13, 6140–6148.**
11	Bhattacharya, Koushik; Kalita, Uddhab; **Singha, Nikhil K.*** (2022): Tailor-made glycopolymers via reversible deactivation radical polymerization: design, properties and applications, ***Polymer Chemistry*, 13, 1458-1483.**
12	Girish Mirchandani, Sachin Basutkar, Venugopal B. Raghavendra, Sarthik Samanta, Ritesh Bhavsar, Subarna Shyamroy, **Singha, Nikhil K.*** (2022) : Fluorine and Siloxane Free Waterborne Near Superhydrophobic Organic Coating Based on Styrene Acrylic Polymer Emulsion through Surface Engineering, ***Macromolecular Materials and Engineering,* 2100676.**

13	Samanta, Sarthik; Banerjee, Sovan Lal; Bhattacharya, Koushik; **Singha, Nikhil K.*** (2021): Graphene Quantum Dots-Ornamented Waterborne Epoxy-Based Fluorescent Adhesive via Reversible Addition-Fragmentation Chain Transfer-Mediated Miniemulsion Polymerization: A Potential Material for Art Conservation, ***ACS Applied Materials & Interfaces,* 13(30) 36307-36319.**
14	Mondal, Prantik; Jana, Gourhari; Pal, Tuhin Subhra; Chattaraj, Pratim K. **and Singha, Nikhil K.*** (2021): Self-healable functional polymers based on Diels–Alder 'click chemistry' involving substituted furan and triazolinedione derivatives: a simple and very fast approach, **Polym. Chem., 12, 6283-6290**
15	Chinmoy Saha, Siva Ponnupandian, Francis R. Costa, G ert Heinrich, **Nikhil K. Singha*** (2021): Polydimethylsiloxane based polyurethane and its composite with layered double hydroxide: Synthesis and its thermal properties, ***Polymer Engineering & Science,* 61 (12), 3163-3169.**
16	A Kumar, P Mondal, PK Behera, NK Singha, DS Pandey, S Mahana (2021): Organic polymer-based materials for efficient photo electrochemical water splitting, ***Nanostructured Materials for Photo electrochemical Water Splitting*, 8-1.**
17	Kalita, Uddhab; Samanta, Sarthik; Banerjee, Sovan Lal; Das, Narayan C.; **Singha, Nikhil K**.* (2021):Biobased Thermoplastic Elastomer Based on an SMS Triblock Copolymer Prepared Via RAFT Polymerization in Aqueous Medium, ***Macromolecules, 54(3), 1478-1488.***
18	Sarkar, Shrabana; Banerjee, Sovan Lal; **Singha, Nikhil K**. *(2021): Dual-Responsive Self-Healable Carboxylated Acrylonitrile Butadiene Rubber Based on Dynamic Diels-Alder "Click Chemistry" and Disulfide Metathesis Reaction, ***Macromolecular Materials and Engineering, 306(3), 2000626.***
19	Ritabrata Ganguly, Pabitra Saha, Sovan Lal Banerjee, Andrij Pich, and **Nikhil K. Singha***(2021): Stimuli-Responsive Block Copolymer Micelles Based on Mussel-Inspired Metal-Coordinated Supramolecular Networks, ***Macromol. Rapid Commun.,* 2100312.**
20	Siva Ponnupandian, Prantik Mondal, Andrew B. Lowe, and **Nikhil K. Singha*** (2021): Self-Healable Hydrophobic Material Based on Anthracenyl Functionalized Fluorous Block Copolymers via Reversible Addition-Fragmentation Chain Transfer Polymerization and Rapid Diels–Alder Reaction, ***Macromol. Mater. Eng.,* 2100307.**
21	Behera, Prasanta Kumar; Raut, Sagar Kumar; Mondal, Prantik; Sarkar, Shrabana; **Singha, Nikhil K**. * (2021): Self-Healable Polyurethane Elastomer Based on Dual Dynamic Covalent Chemistry Using Diels-Alder "Click" and Disulfide Metathesis Reactions, ***ACS Applied Polymer Materials, 3(2), 847-856.***
22	Saha P., Ganguly R. , Li X. , Das R. , **Singha N. K***., Pich A. (2021):Zwitterionic Nanogels and Microgels: An Overview on Their Synthesis and Applications, ***Macromolecular Rapid Communications,* 2100112 (1-23).**
23	Mondal, Prantik; Behera, Prasanta Kumar; **Singha, Nikhil K*** (2020): Macromolecular Engineering in Functional Polymers via 'Click Chemistry' Using Triazolinedione Derivatives, ***Progress in Polymer Science, 113, 101343***.

24	Mirchandania, Girish; Samanta, Sarthik; Raghavendra, B. Venugopal; Chaudhary, Sumit; Baustkarb, Sachin; Shyamroy, Subarna; **Singha, Nikhil K.*** (2021): Self-stratifying amphiphobic coating based on functional polyacrylates, ***Progress in Organic Coatings,* 152, 106106.**
25	Saha, Pabitra; Palanisamy, Anand Raj; Santi, Marta; Ganguly, Ritabrata; Mondal, Somashree; **Singha, Nikhil K.** *; Andrij Pich (2021): Thermoresponsive zwitterionic poly(phosphobetaine)microgels: Effect of macro-RAFT chain length and cross-linker molecular weight on their antifouling properties,***Polym. Adv. Technol.* 32; 2710-2726.**
26	Ponnupandian, Siva; Mondal, Prantik; Becker, Thomas; Hoogenboom, Richard; Lowe, Andrew B; **Singha, Nikhil K*** (2021): Self-healing hydrophobic POSS-functionalized fluorinated copolymers via RAFT polymerization and dynamic Diels–Alder reaction, ***Polymer Chemistry, 12(6), 876-884.***
27	Raut, Sagar K.; Behera, Prasanta K.; Pal, Tuhin S.; Mondal, Prantik; Naskar, Kinsuk; **Singha, Nikhil K*** (2021): Self-healable Hydrophobic Polymer Material having Urethane Linkages via Non-Isocyanate Route and Dynamic Diels-Alder 'Click' Reaction, ***Chemical Communications, 57, 1149-1152.***
28	Mondal, Prantik; Jana, Gourhari; Behera, Prasanta Kumar; Chattaraj, Pratim K; **Singha, Nikhil K*** (2020): Fast "ES-Click" Reaction Involving Furfuryl and Triazolinedione Functionalities toward Designing a Healable Polymethacrylate, ***Macromolecules, 53(19), 8313-8323.***
29	Saha, Pabitra; Santi, Marta; Emondts, Meike; Roth, Hannah; Rahimi, Khosrow; Grosskurth, Johannes; Ganguly, Ritabrata; Wessling, Matthias; **Singha, Nikhil K*.**; Pich, Andrij*****, (2020): Stimuli-Responsive Zwitterionic Core-Shell Microgels for Antifouling Surface Coatings, ***ACS Applied Materials & Interfaces, 12(52), 58223-58238.***
30	Ramasamy, Natarajan; Padmakumar, Amrishkumar; Haralur, Gurulingamurthy; **Singha, Nikhil K*.** (2021): Structure-property relationship of highly crosslinked rubber-iron oxide composite based on chloroprene rubber (CR) as well as on nitrile rubber (NBR); a comparative study using different models, ***Journal of Macromolecular Science, Part A: Pure and Applied Chemistry, 58(1), 59-68.***
31	Sovan Lal Banerjee, Pabitra Saha, Ritabrata Ganguly, Koushik Bhattacharya, Uddhab Kalita, Andrij Pich, **Nikhil K. Singha*** (2020):A Dual Thermoresponsive and Antifouling Zwitterionic Microgel with pH Triggered Fluorescent "On-Off" Core, ***Journal of Colloid and Interface Science,589, 110-126.***
32	Bhattacharjee, M., Pramanik, N.B., **Singha, N.K.**, Haloi, Dhruba J.(2020): Recent advances in RDRP-modified chitosan: A review of its synthesis, properties and applications, ***Polymer Chemistry,* 11, 42, 6718-6738.**
33	Banerjee, S.L.; Das, S.; Bhattacharya, K.; Kundu, M.; Mandal, M. **Singha, N.K.*** (2021): Ag NPs incorporated self-healable thermo responsive hydrogel using precise structural "Interlocking" complex of polyelectrolyte BCPs: A potential new wound healing material, ***Chemical Engineering Journal*, 405, 126436.**
34	Raut, Sagar Kumar; Mondal, Prantik; Parameswaran, Bhavya; Sarkar, Shrabana; Dey, Pranab; Gilbert, Rupesh; Bhadra, Sambhu; Naskar, Kinsuk; Nair, Sujith; **Singha, Nikhil**

	K* (2020): Self-healable Ultrahydrophobic Modified Bio-based Elastomer Using Dynamic Diels-Alder 'Click Chemistry', **European Polymer Journal*, 146, 110204.***
35	Bhattacharya, Koushik; Banerjee, Sovan Lal; Das, Subhayan; Mandal, Mahitosh; **Singha, Nikhil Kumar*** (2020); Glycopolymer Ornamented Octa-arm POSS Based Organic-Inorganic Hybrid Star Block Copolymer as a Lectin Binding Ligand, **Materials Science and Engineering C.,** ***116, 111210.***
36	Saha, Chinmoy; Behera, Prasanta K.; Raut, Sagar Kumar; **Singha, Nikhil K**.*(2020): Polyurethane–POSS hybrid materials: by solution blending and in-situ polymerization processes, ***Bulletin of Materials Science,*** **43,(1) 190.**
37	Mondal P.; Behera, P.K; Voit, B. Boheme*; **Singha, Nikhil K**.* (2020): Tailor-made Functional Polymethacrylates with Dual Characteristics of Self-healing and Shape-memory based on Dynamic Covalent Chemistry, ***Macromolecular Materials and Engineering, 305, 2000142.***
38	Banerjee, SL; Samanta, S.; Sarkar, S; **Singha, N. K**.* (2020): A self-healable and antifouling hydrogel based on PDMS centered ABA tri-block copolymer polymersomes: a potential material for therapeutic contact lenses, ***Journal of Materials Chemistry B, 8, 226-243*.**
39	Saha, C, Behera, P.K, Raut S.G. **Singha, Nikhil K**.* (2020): A Thermoplastic Polyurethane/Nanosilica Composite via Melt mixing process and Its Properties, ***Silicon, 13(4), 1041-1049.***
40	Siva, P.; Chakrabarty, A.; Mondal, P.; Hoogenboom, R.; Lowe, A.B.; **Singha, Nikhil, K**.* (2020): POSS and fluorine containing nanostructured block copolymer; Synthesis via RAFT polymerization and its application as hydrophobic coating material, ***European Polymer Journal, 131, 109679*.**
41	Pal, S., Banerjee S, Kather M., SahaPabitra, Pich A, **Singha Nikhil K*** (2020): Dual Stimuli-Responsive Self-Assembly Behavior of a Tailor-made ABC-type Amphiphilic Tri-block Copolymer, ***Journal of Polymer Science, Part A: Polymer Chemistry,*** **58, 843-851.**
42	Gnanaseelan, M.; Kalita, U.; Janke, A,;Pionteck, J.; Voit, B. **Singha, N. K**. (2020): All methacrylate block copolymer/TiO_2 nanocomposite via ATRP and *in-situ* sol-gel process**, *Materials Today Communications*, 22, 100728**
43	Murugan, N.; Amrishkumar, P.; Nando, G. B.; **Singha, N. K**.* (2020): Thermoplastic elastomer blend based on EMA and NBR; optimization of process parameters, ***Journal of Applied Polymer Science,*** **137 (27), 48900.**
44	Saha, P.; Santi, M.; Frenken, M.; Palanisamy, AR.; Ganguly, R.; and **Singha, Nikhil K***, Pich, A* (2020): Dual-Temperature-Responsive Microgels from a Zwitterionic Functional Graft Copolymer with Superior Protein Repelling Property, ***ACS Macro Letters,*** **9, 895-901**
45	Kumar, ARSS and **Singha, N. K***. (2020): Reversible Addition-Fragmentation Chain Transfer (RAFT) Polymerization in Ionic Liquids: A Sustainable Process, ***Advances in Sustainable Polymers,*** **183-193.**

46	Samanta, S.; Banerjee, SL.; Ghosh, S.; **Singha, N. K**.* (2019): A Smart Polyacrylate Emulsion Based on a New ABC Type Triblock Copolymer via RAFT Mediated Surfactant-free Miniemulsion Polymerization: Its Multifunctional Properties, ***ACS Applied Materials & Interfaces,* 11, 47, 44722-44734.**
47	Santha Kumar, ARRS; **Singha, N. K**.*(2019): RAFT polymerization of 2-hydroxyethyl methacrylate in a deep eutectic solvent, ***Journal of Polymer Science, Part A: Polymer Chemistry,*57, 2281–2286.**
48	Mondal, P.; Jana, G. ; Behera, P. K., Chattaraj, Pratim K; **Singha, Nikhil K***(2019): A New Healable Polymer Material based on Ultrafast Diels-Alder 'Click' Chemistry using Triazolinedione and Fluorescent Anthracyl Derivatives; A Mechanistic Approach, ***Polymer Chemistry,*10, 5070–5079.**
49	Banerjee, Sovan Lal; Swift, Thomas; Hoskins, Richard; Rimmer, Stephen*; **Singha, Nikhil K**.* (2019): A muscle mimetic polyelectrolyte-nanoclay organic-inorganic hybrid hydrogel: its self-healing, shape-memory and actuation properties, ***Journal of Materials Chemistry B: Materials for Biology and Medicine,* 7, 1475-1493.**
50	Ata, Souvik, Banerjee, Sovan Lal, **Singha, Nikhil. K**.* (2019): Self-assembly behavior of POSS based ABA type amphiphilic tri-block copolymer prepared via ATRP, ***European Polymer Journal,* 118, 10-16.**
51	Saha, P., Kather, M. , Banerjee, S.L. , **Singha, N.K***., Pich, A*. (2019): Aqueous solution behavior of thermo responsive polyzwitterionic microgels based on poly(N-vinylcaprolactam) synthesized via RAFT precipitation polymerization, ***European Polymer Journal,* 118, 195-204.**
52	Ghosh, S., Ganguly, S., Das, P., **Singha, N. K**., Das, A.K., Das, N.C. (2019): Fabrication of Reduced Graphene Oxide/Silver Nanoparticles Decorated Conductive Cotton Fabric for High Performing Electromagnetic Interference Shielding and Antibacterial Application, ***Fibers and Polymers,* 20(6), 1161-1171.**
53	Bhattacharya, Koushik; Banerjee, Sovan Lal; Das, Subhayan; Samanta, Sarthik; Mandal, Mahitosh; **Singha, Nikhil Kumar***; (2019): REDOX Responsive Fluorescence Active Glycopolymer Based Nanogel: A Potential Material for Targeted Anticancer Drug Delivery, ***ACS Applied Bio Materials,*2(6), 2587-2599.**
54	Banerjee, Sovan Lal; Potluri, Prasad; **Singha, Nikhil K**.*; (2019): Antimicrobial cotton fibre coated with UV cured colloidal natural rubber latex: A sustainable material, ***Colloids and Surfaces, A: Physicochemical and Engineering Aspects,* 566, 176-187.**
55	Mondal, Prantik; Raut, Sagar K. and **Singha, Nikhil K**.*; (2018): Thermally Amendable Tailor-made Acrylate Copolymers via RAFT Polymerization and Ultrafast Alder-ene 'Click' Chemistry, ***Journal of Polymer Science Part A: Polymer Chemistry**, **56(20), 2310-2318.**
56	Santha Kumar, Arunjunai R. S.; Roy, Manta; **Singha, Nikhil K***., (2018): Effect of ionic liquids on the RAFT polymerization of butyl methacrylate, ***European Polymer Journal,* 107, 294-302**.
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